REMARKS

The present Amendment amends claims 2, 3 and 11 and leaves claims 4, 5, 8-10, 12, 14 and 15 unchanged. Therefore, the present application has pending claims 2-5, 8-12, 14, and 15.

Interview Summary

Applicants thank the Examiner for contacting Applicants' representative on March 20, 2009 to discuss a potential rejection to the claims. As a courtesy, the Examiner gave Applicants an opportunity to further amend the claims to overcome the potential rejection. Applicants provided the Examiner with proposed amendments to overcome the potential rejection on March 24, 2009. However, the Examiner did not agree that the proposed amendments were sufficient to overcome the potential rejection.

35 U.S.C. §103 Rejections

Claims 2, 4 and 8

Claims 2, 4 and 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,541,738 to Mankovitz ("Mankovitz") in view of U.S. Patent No. 5,448,568 to Delpuch et al. ("Delpuch"). This rejection is traversed for the following reasons. Applicants submit that the features of the present invention, as now more clearly recited in claims 2, 4 and 8, are not taught or suggested by Mankovitz or Delpuch, whether taken individually or in combination with each other in the manner suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to the claims to more clearly describe features of the present invention. Specifically, amendments were made to the claims to more clearly recite that the present invention is directed to a receiver apparatus as recited, for example, in independent claim 2.

The present invention, as recited in claim 2, provides a receiver apparatus for a digital signal. The receiver apparatus includes a receiver which receives a plurality of programs with discrimination information and guide information regarding the plurality of programs. According to the present invention, the plurality of programs are time-division multiplexed into a plurality of data packets and the guide information indicates the identification information of packets of the plurality of programs and the contents of the plurality of programs. The receiver apparatus also includes a selector which selects a program from the plurality of programs received by the receiver based on the discrimination information. Also included in the receiver apparatus is a data former which forms guide information regarding the selected program from the received guide information regarding the plurality of programs, the formed guide information indicating the identification information of packets of the selected program and the contents of the selected program, and forms a program signal by re-multiplexing the selected program and the formed guide information regarding only the selected program into plurality of packets form, and by adding a time stamp indicating the time of packet arrival as header information to each packet. Further, the receiver apparatus includes an output device which outputs the formed program signal. The prior art does not teach or suggest all of these features.

The above described features of the present invention, as now more clearly recited in the claims, are not taught or suggested by any of the references of record. Specifically, the features are not taught or suggested by either Mankovitz or Delpuch, whether taken individually or in combination with each other.

Mankovitz teaches an electronic program guide. However, there is no teaching or suggestion in Mankovitz of the receiver apparatus as recited in claim 2 of the present invention.

Mankovitz discloses an indexing VCR system that responds to broadcast information to record a program guide. The program guide may subsequently be displayed to apprise the user of programs to be broadcast during the next day or week, etc. The program guide enables the user to condition the VCR to record selected programs when they are broadcast. The program guide may also include film clips of selected programs to assist the user in making a decision as to whether he/she desires to record any particular program. The program guide is preferably recorded on the video tape in the VCR in the form of a multi-cell grid and as full frame video so that information concerning each program may be displayed in respective cells in the grid. Other information, such as the PLUSCODE® address of the corresponding clip, etc., may be transmitted to the user during the VBI intervals, or by other means.

One feature of the present invention, as recited in claim 2, includes a data former which forms guide information regarding the selected program from the received guide information regarding the plurality of programs, the formed guide information indicating the identification information of packets of the selected program and the contents of the selected program, and forms a program signal by re-multiplexing the selected program and the formed guide information regarding only the selected program into plurality of packets form, and by adding a time stamp indicating the time of packet arrival as header information to each packet. Mankovitz does not disclose this feature.

In the present invention, not only is a program selected from a received multiplexed signal (*see, e.g.*, Fig. 8(1)) and formed guide information (*see, e.g.*, Table 2) regarding only the selected program into the plurality of packets form, but also, a time stamp regarding the time of packet arrival is added as header information to each packet (*see, e.g.*, paragraph [0073] of the U.S. Patent

Application Publication No. 2004/0190857 ("PG Publication") of the present application; and Fig. 8(3); and Figs. 4 and 5 (items 290 and 203)). In accordance with this feature of the present invention, information regarding the selected program is re-multiplexed to form packets at the time of packet reception, even if the signal packets are placed intermittently as indicated in Fig. 8(3). As a result of the claimed features, it is possible to perform recording and reproduction after outputting the formed program signal (*see, e.g.*, paragraphs [0069] and [0070] of the PG Publication of the present application).

The Examiner concedes that Mankovitz does not disclose "multiplexing". Applicants agree with the Examiner, and further assert that Mankovitz does not teach "re-multiplexing" information regarding a program selected from a received multiplexed signal, in the manner claimed. Applicants further submit that Mankovitz does not teach adding a time stamp indicating the time of packet arrival as header information to each packet, as claimed.

Therefore, Mankovitz fails to teach or suggest "a data former which forms guide information regarding the selected program from the received guide information regarding said plurality of programs, the formed guide information indicating the identification information of packets of the selected program and the contents of the selected program, and forms a program signal by re-multiplexing the selected program and the formed guide information regarding only the selected program into plurality of packets form, and by adding a time stamp indicating the time of packet arrival as header information to each packet" as recited in claim 2.

The above noted deficiencies of Mankovitz are not supplied by any of the other references of record, namely Delpuch, whether taken individually or in combination with each other. Therefore, combining the teachings of Mankovitz and

Delpuch in the manner suggested by the Examiner still fails to teach or suggest the features of the present invention as now more clearly recited in the claims.

Delpuch teaches a system of transmitting an interactive TV signal. However, there is no teaching or suggestion in Delpuch of the receiver apparatus as recited in claim 2 of the present invention.

Delpuch discloses an apparatus and a method for formatting executable codes and data, defining interactive applications, with video and audio program material, for reliable and convenient access includes compressing (18, 21) audio and video programs according to a protocol such as MPEG. The compressed audio and video (A/V) programs are formed (19, 22) into transport packets. Interactive application programs associated with A/V programs are compiled (10) into functional modules, condensed and formed into transport packets. A module may be executable software or data. Further modules designated "Signal modules", are generated to condition respective receivers to suspend or resume execution of an interactive application. Video packets, audio packets and application packets are time division multiplexed (16) for transmission. Signal modules are multiplexed in the packet stream to appropriately reprogram respective receivers on the occurrence of such changes in received signal components.

One feature of the present invention, as recited in claim 2, includes a data former which forms guide information regarding the selected program from the received guide information regarding the plurality of programs, the formed guide information indicating the identification information of packets of the selected program and the contents of the selected program, and forms a program signal by re-multiplexing the selected program and the formed guide information regarding only the selected program into plurality of packets form, and by adding a time stamp

indicating the time of packet arrival as header information to each packet. Delpuch does not disclose this feature.

As described in the Abstract and in column 2, Delpuch discloses where "a plurality of programs and information regarding programs are multiplexed into packet from, and the formed packets are broadcast." However, the program signal disclosed by Delpuch is a broadcasting multiplexed signal, and there is no teaching or suggestion in Delpuch of re-multiplexing information indicating a program selected from the broadcast multiplexed signal to form a program signal, as claimed.

In addition, Delpuch provides a broadcast multiplexed signal of which packets are not intermittent, whereas in the present invention, packets are embodied as shown with reference to Fig. 8(3). The program signal as described in paragraphs [0072] to [0073] of the PG Publication of the present application is required to reproduce while maintaining time intervals of signals at the time of packet reception. Specifically, as described in paragraph [0072], Fig. 8(3) shows signals applied to the VTR 53 from the interface 290 in Figs. 4 and 5 for recording the packets in packed state at the time of recording and restoring the packet intervals to the original time intervals at the time of reproduction. To this end, the present invention provides means of adding a time stamp indicating the time of packet arrival as header information to each packet (*see, e.g.*, paragraph [0073]).

Therefore, Delpuch fails to teach or suggest "a data former which forms guide information regarding the selected program from the received guide information regarding said plurality of programs, the formed guide information indicating the identification information of packets of the selected program and the contents of the selected program, and forms a program signal by re-multiplexing the selected program and the formed guide information regarding only the selected program into

plurality of packets form, and by adding a time stamp indicating the time of packet arrival as header information to each packet" as recited in claim 2.

Both Mankovitz and Delpuch suffer from the same deficiencies, relative to the features of the present invention, as recited in the claims. Therefore, combining the teachings of Mankovitz and Delpuch in the manner suggested by the Examiner does not render obvious the features of the present invention as now more clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection of claims 2, 4 and 8 as being unpatentable over Mankovitz in view of Delpuch are respectfully requested.

Claims 3, 5, 9-12, 14 and 15

Claims stand rejected under 35 U.S.C. §103(a) as being unpatentable over Mankovitz in view of Delpuch, and further in view of U.S. Patent No. 5,671,095 to Arai et al. ("Arai"). This rejection is traversed for the following reasons. Applicants submit that the features of the present invention, as now more clearly recited in claims 3, 5, 9-12, 14 and 15 are not taught or suggested by either of Mankovitz, Delpuch or Arai, whether taken individually or in combination with each other in the manner suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to the claims to more clearly describe features of the present invention. Specifically, amendments were made to the claims to more clearly recite that the present invention is directed to a receiver apparatus and a recorder apparatus as recited, for example, in independent claims 3 and 11.

The present invention, as recited in claim 3, and as similarly recited in claim 11, provides a receiver apparatus for a digital signal. The receiver apparatus includes a receiver which receives a plurality of programs with discrimination information and guide information regarding the plurality of programs, where the

plurality of programs are time-division multiplexed into a plurality of data packets and the guide information indicates identification information of packets of the plurality of programs and the contents of the plurality of programs. The receiver apparatus also includes a selector which selects a program from the plurality of programs received by the receiver based on the discrimination information. Furthermore, the receiver apparatus includes a data former which forms guide information regarding the selected program from the received guide information regarding the plurality of programs, the formed guide information indicating the identification information of packets of the selected program and the contents of the selected program, and forms a program signal by re-multiplexing the selected program and the formed guide information regarding only the selected program into a plurality of packets form, and by adding time stamp indicating the time of packet arrival as header information to each packet. Further, the receiver apparatus includes an output/input device which outputs/inputs the formed program signal, and a change-over circuit which selects and outputs the program selected by the selector or the selected program input by the output/input device. Even further, the receiver apparatus includes a decoder which decodes a program selected by the change-over circuit, where the program selected by the selector is decoded based on the guide information received by the receiver, and the selected program input by the output/input device is decoded based on the formed guide information input by the output/input device. The prior art does not teach or suggest all of these features.

The above described features of the present invention, as now more clearly recited in the claims, are not taught or suggested by any of the references of record.

Specifically, the features are not taught or suggested by either of Mankovitz, Delpuch or Arai, whether taken individually or in combination with each other.

As previously discussed, Mankovitz teaches an electronic program guide. However, there is no teaching or suggestion in Mankovitz of the receiver apparatus or the recorder apparatus as recited in claims 3 and 11 of the present invention.

One feature of the present invention, as recited in claim 3, and as similarly recited in claim 11, includes a data former which forms guide information regarding the selected program from the received guide information regarding the plurality of programs, the formed guide information indicating the identification information of packets of the selected program and the contents of the selected program, and forms a program signal by re-multiplexing the selected program and the formed guide information regarding only the selected program into a plurality of packets form, and by adding a time stamp indicating the time of packet arrival as header information to each packet. Mankovitz does not disclose this feature.

As previously discussed, the Examiner concedes that Mankovitz does not disclose "multiplexing". Applicants agree with the Examiner, and further assert that Mankovitz does not teach "re-multiplexing" information regarding a program selected from a received multiplexed signal, in the manner claimed. Applicants further submit that Mankovitz does not teach adding a time stamp indicating the time of packet arrival as header information to each packet, as claimed.

Therefore, Mankovitz fails to teach or suggest "a data former which forms guide information regarding the selected program from the received guide information regarding said plurality of programs, the formed guide information indicating the identification information of packets of the selected program and the contents of the selected program, and forms a program signal by re-multiplexing the selected program and the formed guide information regarding only the selected

program into a plurality of packets form, and by adding a time stamp indicating the time of packet arrival as header information to each packet" as recited in claim 3, and as similarly recited in claim 11.

The above noted deficiencies of Mankovitz are not supplied by any of the other references of record, namely Delpuch, whether taken individually or in combination with each other. Therefore, combining the teachings of Mankovitz and Delpuch in the manner suggested by the Examiner still fails to teach or suggest the features of the present invention as now more clearly recited in the claims.

As previously discussed, Delpuch teaches a system of transmitting an interactive TV signal. However, there is no teaching or suggestion in Delpuch of the receiver apparatus or the recorder apparatus as recited in claims 3 and 11 of the present invention.

One feature of the present invention, as recited in claim 3, and as similarly recited in claim 11, includes a data former which forms guide information regarding the selected program from the received guide information regarding the plurality of programs, the formed guide information indicating the identification information of packets of the selected program and the contents of the selected program, and forms a program signal by re-multiplexing the selected program and the formed guide information regarding only the selected program into a plurality of packets form, and by adding a time stamp indicating the time of packet arrival as header information to each packet. Delpuch does not disclose this feature.

As previously discussed, and as described in the Abstract and in column 2, Delpuch discloses where "a plurality of programs and information regarding programs are multiplexed into packet from, and the formed packets are broadcast." However, the program signal disclosed by Delpuch is a broadcasting multiplexed signal, and there is no teaching or suggestion in Delpuch of re-multiplexing

information indicating a program selected from the broadcast multiplexed signal to form a program signal, as claimed.

In addition, Delpuch provides a broadcast multiplexed signal of which packets are not intermittent, whereas in the present invention, packets are embodied as shown with reference to Fig. 8(3). The program signal as described in paragraphs [0072] to [0073] of the PG Publication of the present application is required to reproduce while maintaining time intervals of signals at the time of packet reception. Specifically, as described in paragraph [0072], Fig. 8(3) shows signals applied to the VTR 53 from the interface 290 in Figs. 4 and 5 for recording the packets in packed state at the time of recording and restoring the packet intervals to the original time intervals at the time of reproduction. To this end, the present invention provides means of adding a time stamp indicating the time of packet arrival as header information to each packet (*see, e.g.*, paragraph [0073]).

Therefore, Delpuch fails to teach or suggest "a data former which forms guide information regarding the selected program from the received guide information regarding said plurality of programs, the formed guide information indicating the identification information of packets of the selected program and the contents of the selected program, and forms a program signal by re-multiplexing the selected program and the formed guide information regarding only the selected program into a plurality of packets form, and by adding a time stamp indicating the time of packet arrival as header information to each packet" as recited in claim 3, and as similarly recited in claim 11.

The above noted deficiencies of Mankovitz and Delpuch are not supplied by any of the other references of record, namely Arai, whether taken individually or in combination with each other. Therefore, combining the teachings of Mankovitz, Delpuch and Arai in the manner suggested by the Examiner still fails to teach or

suggest the features of the present invention as now more clearly recited in the claims.

Arai teaches a digital transmission signal processing system and recording/reproducing system. However, there is no teaching or suggestion in Arai of the receiver apparatus or the recorder apparatus as recited in claims 3 and 11 of the present invention.

Arai teaches a processing system and a recording/reproducing system for a digital signal including a digital video signal and a digital audio signal. Upon transmission, the digital signal is transmitted after time-base compression and modulation. The transmitted signal is received and demodulated. When the signal is to be transmitted to a plurality of recording/reproducing systems, address signals designating ones of the plural recording/reproducing systems and a control signal for controlling the start/stop of recording are transmitted. The recording by the recording/reproducing system is controlled so that it is made with the same format in either normal-speed or high-speed mode or in either normal or multiple recording mode.

One feature of the present invention, as recited in claim 3, and as similarly recited in claim 11, includes a data former which forms guide information regarding the selected program from the received guide information regarding the plurality of programs, the formed guide information indicating the identification information of packets of the selected program and the contents of the selected program, and forms a program signal by re-multiplexing the selected program and the formed guide information regarding only the selected program into a plurality of packets form, and by adding a time stamp indicating the time of packet arrival as header information to each packet. Arai does not disclose this feature, and the Examiner does not rely upon Arai for teaching this feature.

Therefore, Arai fails to teach or suggest "a data former which forms guide information regarding the selected program from the received guide information regarding said plurality of programs, the formed guide information indicating the identification information of packets of the selected program and the contents of the selected program, and forms a program signal by re-multiplexing the selected program and the formed guide information regarding only the selected program into a plurality of packets form, and by adding a time stamp indicating the time of packet arrival as header information to each packet" as recited in claim 3, and as similarly recited in claim 11.

Each of Mankovitz, Delpuch and Arai suffer from the same deficiencies, relative to the features of the present invention, as recited in the claims. Therefore, combining the teachings of Mankovitz, Delpuch and Arai in the manner suggested by the Examiner does not render obvious the features of the present invention as now more clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection of claims 3, 5, 9-12, 14 and 15 as being unpatentable over Mankovitz in view of Delpuch, and further in view of Arai are respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references used in the rejection of claims 2-5, 8-12, 14, and 15.

In view of the foregoing amendments and remarks, Applicants submit that claims 2-5, 8-12, 14, and 15 are in condition for allowance. Accordingly, early allowance of claims 2-5, 8-12, 14, and 15 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of BRUNDIDGE & STANGER, P.C., Deposit Account No. 50-4888 (referencing Attorney Docket No. 500.34521CC3).

Respectfully submitted,

BRUNDIDGE & STANGER, P.C.

/DONNA K. MASON/
Donna K. Mason
Registration No. 45,962

DKM/kah
(703) 684-1470